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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of) **Mail Stop: APPEAL BRIEF - PATENTS**
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Andrew FRANSMAN et al.) Customer No. 32127
)
Application No.: 09/204,523) Group Art Unit: 2611 **RECEIVED**
)
Filed: December 3, 1998) Examiner: R. Brown OCT 23 2003
)
For: METHOD AND APPARATUS) **Technology Center 2600**
FOR NEAR VIDEO ON DEMAND)

APPEAL BRIEF

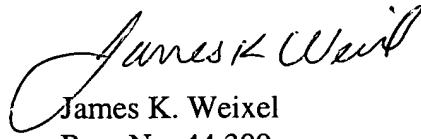
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Dear Sir:

Enclosed herewith is an Appeal Brief in the above-referenced application, filed in triplicate. Please charge the required fee of \$330.00 to Deposit Account No. 07-2339.

The Assistant Commissioner for Patents is also authorized to charge any additional fee required by the submission of these papers, or to credit any overpayment to Deposit Account 07-2339. One additional copy of this letter is enclosed herewith.

Respectfully submitted,



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Enclosures



11-6-0-3
JC
PATENT
Attorney Docket No. 97-823RCE1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of

Andrew FRANSMAN et al.

Application No.: 09/204,523

Filed: December 3, 1998

For: METHOD AND APPARATUS
FOR NEAR VIDEO ON DEMAND

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APPEAL BRIEF

Mail Stop: Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is submitted in triplicate in response to the final Office Action, mailed April 8, 2003, and in support of the Notice of Appeal and one month extension of time, filed August 25, 2003.

10/22/2003 BABRAH01 00000081 072339 09204523

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I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Verizon Laboratories Inc.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals and interferences.

III. STATUS OF CLAIMS

Claims 1-8, 17-25, and 27 are pending in this application. All of these claims have been finally rejected and are the subject of the present appeal.

IV. STATUS OF AMENDMENTS

An After Final Request for Reconsideration was filed on June 4, 2003. An Advisory Action, dated July 25, 2003, indicated that the After Final Request for Reconsideration was considered, but did not place the application in condition for allowance.

V. SUMMARY OF THE INVENTION

Systems and methods consistent with the principles of the invention automatically operate and coordinate operation of a group of relatively independent systems, including manual systems, to function in unison as a near-video-on-demand (NVOD) system. In an exemplary implementation, a master scheduler 20 connects to a video server 11, which, in turn, connects to a head-end 12 of a NVOD system 10 (Fig. 1; pg. 9, lines 16-18). Master scheduler 20 may also connect to a communication device and to a business support system (BSS) 88 that may include a billing system 26 (Fig. 1; pg. 11, lines 13-17). NVOD system 10 may also include a video management unit 90 that allows an administrator to perform content management tasks (Fig. 1; pg. 12, lines 1-4).

Master scheduler 20 stores and maintains head-end configuration data, including both physical and logical channel line-up information to link scheduled content with the delivery

channels of NVOD system 10, as well as to validate and distribute a schedule (pg. 19, lines 8-13). Master scheduler 20 may include, as illustrated in Fig. 2, a head-end configuration manager 60, a schedule management system 62, a schedule distributor 64, an asset management system 66, a video server content manager 68, a data management system 70, a task management system 72, a report generator 74, a security management system 76, an administrator interface 78, an event notification generator 80, and a database 82. Master scheduler 20 may also have a dedicated NVOD channel set aside as a test channel that is not used for broadcasting NVOD programs (pg. 21, lines 14-16). The test channel may be used for validating that the correct content is loaded and may be played out of video server 11 and decoded on a set-top box, subsequent to the loading of the content and before a scheduled viewing time (pg. 21, lines 16-20). The test channel can also be used for monitoring video quality (pg. 21, lines 20-21).

Head-end configuration manager 60 tracks the addition, deletion, modification, tracking, planning, viewing, and reporting of the head-end configuration information, including physical, as well as logical, channel parameters (Fig. 2; pg. 14, lines 2-8). Graphical user interfaces (GUIs) 104 and 106 may be provided to facilitate configuring of system parameters (Figs. 3 and 4). GUI 104, for example, allows for configuring the hardware of the head-end, which provides lists and descriptions of available items, such as channels and data providers, that may be activated on predetermined effective dates (Fig. 3; pg. 14, lines 9-14). GUI 106 allows for configuring the distribution status of the head-end, in which lists of schedule line-ups and versions thereof may be displayed with the status of the distribution of each line-up (Fig. 4; pg. 14, lines 16-19).

Schedule management system 62 receives new and/or updated schedule information from a schedule provider 84 (Fig. 2; pg. 22, lines 17-21). The schedule information may include an electronic program guide (EPG) data file having scheduling information, a product definition file that provides pricing information of available programs and events, and an asset metadata file that provides information on the content and the tapes carrying the content (pg. 22, line 21 to pg. 23, line 2). Schedule management system 62 converts the received scheduling information into a format that is used internally by master scheduler 20 (pg. 23, lines 9-11). Schedule management system 62 then processes the converted scheduling information to validate that the new and/or updated scheduling information is to be used by master scheduler 20 by, for example, comparing the new and/or updated scheduling information to previous scheduling information to ensure, for example, that there are not conflicts (pg. 23, line 20 to pg. 24, line 3).

Schedule distributor 64 disseminates currently valid scheduling information to external recipient systems, such as video server 11, a factoid provider system 86, an EPG system 87, and BSS 88 (Fig. 2; pg. 25, lines 1-7). Asset management system 66 manages the video assets that are received from the assets and tapes data provider 100 (Fig. 2; pg. 33, lines 5-7). Asset management system 66 performs archival and retrieval functions to store and obtain video data in database 82 (pg. 33, lines 10-12). Asset management system 66 also tracks the status of video data (e.g., when and how often a video asset is retrieved) (pg. 33, lines 12-14).

Video server content manager 68 interacts with video server 11 to inquire about content-related information (Fig. 2; pg. 40, lines 2-3). For example, video server content manager 68 determines when and where to load/unload an item of content, such as a video asset (pg. 40, lines

4-6). Video server content manager 68 also allows administrators to monitor, control, and validate the loading and unloading of content via one or more GUIs (Figs. 22-24; pg. 40, lines 6-9).

Data management system 70 maintains database 82 for storing information about the assets from content providers, as well as network configurations used to transport video data (Fig. 2; pg. 46, lines 9-12). Data management system 70 also stores the current valid schedule for delivering NVOD events to subscribers and other persistent data used by master scheduler 20 (e.g., operating parameters, user login data, etc.) in database 82 (pg. 46, lines 12-19).

Task management system 72 coordinates and causes the execution of tasks and sub-tasks performed by master scheduler 20 and tracks the execution and status of such tasks and sub-tasks (Fig. 2; pg. 47, lines 2-6). Report generator 74 allows users to generate a variety of pre-defined reports 96 (Fig. 2; pg. 53, lines 20-21). Report generator 74 may prepare and issue the following types of reports: channel configuration/line-up reports, asset and tape catalog reports, server content reports, task management reports, event schedule reports, and trouble/error reports (pg. 54, lines 11-14).

Security management system 76 maintains security protocols to ensure that only legitimate users may gain access to the operations of master scheduler 20 (Fig. 2; pg. 56, lines 6-9). Administrator interface 78 allows an administrator to view schedules, make price changes, manage content using video server content management system 68, and generate reports using report generator 74 (Fig. 2; pg. 57, lines 19-23). Event notification generator 80 generates event notifications (e.g., alerts and/or messages to the administrator) through, for example,

administrator interface 78, an e-mail system, or through printed reports or messages using report generator 74 (Fig. 2; pg. 63, lines 19-23).

VI. ISSUES

Whether claims 1-3 are unpatentable under 35 U.S.C. § 103(a) over Clark (U.S. Patent No. 5,383,112) in view of Nouri et al. (U.S. Patent No. 6,088,816), and further in view of Ritchie, Jr. et al. (U.S. Patent No. 5,790,523);

Whether claims 4-8 are unpatentable under 35 U.S.C. § 103(a) over Clark in view of Nouri et al., and further in view of Ritchie, Jr. et al. and Gardner et al. (U.S. Patent No. 5,583,995);

Whether claims 17 and 18 are unpatentable under 35 U.S.C. § 103(a) over Clark in view of Davis et al. (U.S. Patent No. 5,576,755), and further in view of Ritchie, Jr. et al.;

Whether claims 19 and 20 are unpatentable under 35 U.S.C. § 103(a) over Clark in view of Davis et al., and further in view of Ritchie, Jr. et al. and Nouri et al.; and

Whether claims 21-25 and 27 are unpatentable under 35 U.S.C. § 103(a) over Clark in view of Davis et al., and further in view of Ritchie, Jr. et al. and Gardner et al.

VII. GROUPING OF CLAIMS

Appellants are satisfied to let claims 1-3 stand or fall together; claims 4-8 stand or fall together; claims 17 and 18 stand or fall together; claims 19 and 20 stand or fall alone, claims 21-23, 25, and 27 stand or fall together; and claim 24 stands or falls alone. The patentability of each of these different groups of claims is argued separately in the Arguments section below.

VIII. ARGUMENTS

A. The rejection of claims 1-3 under 35 U.S.C. § 103(a) over Clark (U.S. Patent No. 5,383,112) in view of Nouri et al. (U.S. Patent No. 6,088,816), and further in view of Ritchie, Jr. et al. (U.S. Patent No. 5,790,523) should be REVERSED.

Claims 1-3 stand finally rejected under 35 U.S.C. § 103(a) over Clark in view of Nouri et al., and further in view of Ritchie, Jr. et al. Appellants choose claim 1 as representative of the group including claims 1-3.

Clark is directed to an inventory management system. In Clark, a serving computer 15 controls the operation of a group of video players 17 in accordance with an exhibition plan or schedule (col. 4, lines 23-26). The exhibition plan includes a five-digit event code, a title, rating code, channel, starting times, dates, run time, and price for each exhibition of a performance (col. 4, lines 34-37).

Nouri et al. is directed to a fault tolerant method for obtaining and displaying, or updating the status of server components through a remote interface board and either a local or remote client machine without intervention of the server operation system software (Abstract).

Ritchie, Jr. et al. is directed to a test system that evaluates the operating state of a head-

end of a broadband communications network for communicating telephony signals between a telephony system and subscribers of communications services (Abstract).

The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention always rests upon the Examiner. *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In rejecting a claim under 35 U.S.C. § 103, the Examiner must provide a factual basis to support the conclusion of obviousness. *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). Based upon the objective evidence of record, the Examiner is required to make the factual inquiries mandated by *Graham v. John Deere Co.*, 86 S.Ct. 684, 383 U.S. 1, 148 USPQ 459 (1966). The Examiner is also required to explain how and why one having ordinary skill in the art would have been realistically motivated to modify an applied reference and/or combine applied references to arrive at the claimed invention. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

In establishing the requisite motivation, it has been consistently held that the requisite motivation to support the conclusion of obviousness is not an abstract concept, but must stem from the prior art as a whole to impel one having ordinary skill in the art to modify a reference or to combine references with a reasonable expectation of successfully achieving some particular realistic objective. See, for example, *Interconnect Planning Corp. v. Feil*, 227 USPQ 543 (Fed. Cir. 1985). Consistent legal precedent admonishes against the indiscriminate combination of prior art references. *Carella v. Starlight Archery*, 804 F.2d 135, 231 USPQ 644 (Fed. Cir. 1986); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985).

With these principles in mind, Appellants' claim 1 recites a combination of features, including a schedule management system arranged to receive and validate a schedule, and a content manager system arranged to monitor and control the loading of assets into a video server according to the validated schedule, where the assets include video content scheduled for staggered transmission to subscribers of a near-video-on-demand (NVOD) system using a plurality of channels, where the plurality of channels includes a test channel dedicated solely for testing a selected asset, and where the content manager includes a graphical user interface configured to allow an administrator to view the selected asset using the test channel to verify the integrity of the selected asset loaded into the video server. Clark, Nouri et al., and Ritchie, Jr. et al., whether taken alone or in any reasonable combination, do not disclose or suggest this combination of features.

For example, Clark, Nouri et al., and Ritchie, Jr. et al. do not disclose a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system. The Examiner admits that Clark and Nouri et al. do not disclose this feature (final Office Action, pg. 11) and relies on col. 25, line 62 to col. 26, line 15, and col. 28, lines 52-60, of Ritchie, Jr. et al. for allegedly disclosing this feature (final Office Action, pg. 12). Appellants respectfully submit that these sections of Ritchie, Jr. et al. do not disclose or suggest the recited test channel.

Col. 25, line 62 to col. 26, line 16, of Ritchie, Jr. et al. discloses:

FIG. 13 is a block diagram illustrating a test facility located at the headend interface unit (HIU) of the broadband communications system. Referring now to FIGS. 3C, 7 and 13, a test control module (TCM) 800 is connected to multiple upstream receiver modules (URMs) 802 and downstream transmitter modules

(DTMs) 804. The TCM 800 is connected to each URM 802, also called a demodulator, via an upstream test link 806, which carries radio frequency (RF) test signals during an upstream receiver test. Each DTM 804 is connected to the TCM 800 via the combination of a test RF combiner 808 and a downstream test link 810. The combiner 808 operates to combine the transmit signals output by each DTM 804 and outputs the resultant signal to the TCM 800 via the downstream test link 810 during a downstream transmitter test. The TCM 800, the URMs 802, and the DTMs 804 are connected via bidirectional data communication links 814 to an RF control module (RCM) 812.

The URMs 802, the DTMs 804, and the RCM 812 represent functions conducted by components of the headend interface unit (HIU) 301 shown in FIGS. 7 and 9.

While this section of Ritchie, Jr. et al. appears to disclose an upstream test link 806 and a downstream test link 810, these test links 806 and 810 do not test a selected asset that includes video content scheduled for staggered transmission to subscribers of a NVOD system, as recited in Appellants' claim 1. Instead, Ritchie, Jr. et al. specifically discloses that these test links 806 and 810 are used for testing an upstream receiver (col. 26, lines 1-4) and a downstream transmitter, respectively, through the use of radio frequency test signals (col. 26, lines 7-10).

Col. 28, lines 52-60, of Ritchie, Jr. et al. discloses:

With respect to downstream test operations, the test system can support an evaluation of the quality of the downstream transmit signal output by a selected modulator at the headend. In the event that the downstream signal received by the test system, does not satisfy a predetermined quality threshold, a determination can be made that the selected modulator has entered a fault state. Based on this determination, a replacement unit can be substituted for the failed modulator.

This section of Ritchie, Jr. et al. merely discloses the testing of a modulator at the head-end. This section of Ritchie, Jr. et al. does not disclose or suggest, however, a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system, as required by Appellants' claim 1.

In the final Office Action, the Examiner further points to col. 26, lines 1-20, and col. 27, lines 12-25, of Ritchie, Jr. et al. for allegedly disclosing the recited test channel (final Office Action, pg. 4). Appellants submit that these sections of Ritchie, Jr. et al. do not disclose or suggest a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system, as required by Appellants' claim 1.

Col. 26, lines 1-20, of Ritchie, Jr. et al. discloses:

The TCM 800 is connected to each URM 802, also called a demodulator, via an upstream test link 806, which carries radio frequency (RF) test signals during an upstream receiver test. Each DTM 804 is connected to the TCM 800 via the combination of a test RF combiner 808 and a downstream test link 810. The combiner 808 operates to combine the transmit signals output by each DTM 804 and outputs the resultant signal to the TCM 800 via the downstream test link 810 during a downstream transmitter test. The TCM 800, the URMs 802, and the DTMs 804 are connected via bidirectional data communication links 814 to an RF control module (RCM) 812.

The URMs 802, the DTMs 804, and the RCM 812 represent functions conducted by components of the headend interface unit (HIU) 301 shown in FIGS. 7 and 9. Specifically, the URMs 802 correspond to the reverse demodulators 330a-330n; the DTMs 804 correspond to the forward modulators 320a-320n; and the RCM 812 corresponds to the processing unit 308.

This section of Ritchie, Jr. et al. discloses that TCM 800 connects to each URM 802 via an upstream test link 806 and each DTM 804 connects to TCM 800 via a test RF combiner 808 and downstream test link 810. Contrary to the Examiner's allegation, this section of Ritchie, Jr. et al. does not disclose or suggest a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system, as required by Appellants' claim 1.

Col. 27, lines 12-25, of Ritchie, Jr. et al. discloses that DTM 804 transmits downstream signals to customer interface units (CIUs) 400 via CATV network 12. This section of Ritchie, Jr. et al. does not disclose or suggest a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system, as required by Appellants' claim 1.

The Examiner further alleges with respect to these sections of Ritchie, Jr. et al. that "[t]he downstream transmitter module, DTM 804 corresponds with the transmission (server) assets disclosed in both Clark & Nouri. Thus test line 810 reads on the claimed channel dedicated solely to the testing of a selected asset and meets the claimed subject matter" (final Office Action, pg. 4). Appellants disagree.

Contrary to the Examiner's position, Ritchie, Jr. et al. does not disclose or suggest that DTM 804 corresponds to transmission assets or, as recited in Appellants' claim 1, to video content scheduled for staggered transmission to subscribers of a NVOD system. Instead, Ritchie, Jr. et al. merely discloses that the DTM 804 transmits downstream data to customer interface units. See, for example, col. 27, lines 26-40, of Ritchie, Jr. et al. that supports Appellants' position. The Examiner has failed to specifically point out where in Ritchie, Jr. et al. it is disclosed that the downstream transmission module 804 includes video content scheduled for staggered transmission to subscribers of a NVOD system. As set forth above, Ritchie, Jr. et al. is directed to transmitting telephony signals and not, as required by claim 1, video content scheduled for staggered transmission to subscribers of a NVOD system.

The Examiner further alleges in the Advisory Action that "[i]t is pointed out that the

DMT 804 represents a selected asset, which includes video content scheduled for transmission to subscribers. Specifically, col. 27, lines 14-16 states, 'the main RF output 818 is used by the DMT 804 for transmitting downstream signals to the CIU's 400 via the CATV network 12'. Furthermore, col. 27, lines 16-18 states, 'whereas the test output 820 is used for transmitting downstream test signals for reception by the TCM 800'. Next, the test signals from the multiple DMT 804 are combined in combiner 808 and delivered to the test control module TCM 800, via the downstream test link 810; see col. 26, lines 40-50. Thus it is clear from the Specification of Ritchie and Fig. 13, that the reference discloses the claimed feature of using 'a test channel dedicated solely to testing a selected asset, where the selected asset includes video content'" (Advisory Action, pp. 2-3). The Examiner's reasoning is flawed for many reasons.

First, Ritchie, Jr. et al.'s DMTs 804 represent downstream transmitter modules (see col. 25, line 65 to col. 26, line 1) and correspond to forward modulators 320 of the head-end interface unit 301 (col. 26, lines 14-20). Ritchie, Jr. et al. specifically discloses that that the forward modulators 320 are used for coupling outgoing telephony signals to the broadband network (col. 16, lines 58-62). Contrary to the Examiner's position, Ritchie, Jr. et al. in no way discloses or suggests that DMTs 804 or forward modulators 320 are video content scheduled for staggered transmission to subscribers of a NVOD system. Moreover, Ritchie, Jr. et al. does not disclose or suggest that DMTs 804 or forward modulators 320 transmit video content scheduled for staggered transmission to subscribers of a NVOD system. As set forth above, Ritchie, Jr. et al. is directed to transmitting telephony signals between a telephony system and subscribers of a communications system (Abstract) and not the staggered transmission of video content to

subscribers of a NVOD system.

Second, the Examiner fails to point to any section of Ritchie, Jr. et al. that discloses that DMT 804 or forward modulator 320 is video content. The disclosure of Ritchie, Jr. et al. appears to use the term "modulator" in the way that it is known in the art. Nothing in the disclosure of Ritchie, Jr. et al. defines DMT 804 or forward modulator 320 as video content, as alleged by the Examiner.

Finally, the Examiner's position ignores some of the features recited in Appellants' claim 1. Appellants' claim 1 recites a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system. The Examiner alleges that Ritchie, Jr. et al.'s DMTs 804 is video content, but Appellants' claim 1 recites more than video content. The Examiner fails to address, and the Ritchie, Jr. et al. document fails to teach, a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system.

The Examiner further alleges with respect to this feature that "Ritchie unambiguously teaches that the test links 806 and 810 are only used for testing the URM 802 and DTM 804, respectively" (emphasis in original) (final Office Action, page 5). The Examiner also alleges that that the "combination of Clark (col. 4, lines 30-45; col. 5, lines 10-24) & Nouri (col. 3, lines 45-65; col. 6, lines 51-67) is relied upon to teach testing 'a selected asset that includes video content for staggered transmission to subscribers of a NVOD system' using a graphical user interface" (final Office Action, page 3). Appellants strenuously object to the Examiner's piecemeal

examination of the test channel feature of claim 1.

Claim 1 recites, *inter alia*, a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system. The Examiner points to col. 25, line 62 to col. 26, line 15, and col. 28, lines 52-60, of Ritchie, Jr. et al. as allegedly disclosing a test channel dedicated solely for testing and col. 4, lines 30-45, and col. 5, lines 10-24, of Clark and col. 3, lines 45-65, and col. 6, lines 51-67, of Nouri et al. as allegedly disclosing testing a selected asset that includes video content for staggered transmission to subscribers of a NVOD system. Instead of addressing this entire feature, the Examiner appears to be breaking the feature down into parts and pointing to sections of Ritchie, Jr. et al., Clark, and Nouri et al. that allegedly disclose each of the individual parts. Put another way, instead of addressing a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system, the Examiner points to sections of Ritchie, Jr. et al. that allegedly discloses a test channel and sections of Clark and Nouri et al. that allegedly disclose testing an asset that includes video content scheduled for staggered transmission to subscribers of a NVOD system, but fails to specifically point out where in Ritchie, Jr. et al., Clark, or Nouri et al. this entire feature is disclosed. Appellants object to the piecemeal examination of this feature.

Appellants further submit that, contrary to the Examiner's allegation, Nouri et al. in no way discloses or suggests testing an asset that includes video content scheduled for staggered transmission to subscribers of a NVOD system. The Examiner points to col. 3, lines 45-65, and col. 6, lines 51-67, of Nouri et al. for allegedly disclosing testing an asset that includes video

content scheduled for staggered transmission to subscribers of a NVOD system using a graphical user interface (final Office Action, pg. 6). These sections of Nouri et al., however, are in no way related to this feature. In fact, Nouri et al. is totally unrelated to a NVOD system. To the contrary, Nouri et al. is directed to a fault tolerant method of obtaining and displaying or updating the status of server components (Abstract). Therefore, the Examiner's rationale regarding the combination of Clark, Nouri et al., and Ritchie, Jr. et al. teaching a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system is flawed.

Even assuming, for the sake of argument, that Ritchie, Jr. et al. can be reasonably construed to disclose the recited test channel, as alleged by the Examiner, Appellants submit that one skilled in the art at the time of Appellants' invention would not have been motivated to combine the disclosures of Clark, Nouri et al., and Ritchie, Jr. et al. in the manner suggested by the Examiner, absent impermissible hindsight.

An important concept that should be noted is that in order to reach a proper determination under 35 U.S.C. § 103, the Examiner must step backward in time and into the shoes of a hypothetical "person of ordinary skill in the art" at a time when Appellants' invention was unknown and just before it was made. With this concept in mind, it appears that the Examiner believes that it is conceivable that, having the Clark document, which is drawn to inventory management (Abstract), one skilled in the art at the time Appellants' invention was made, having no knowledge of Appellants' invention, would have combined the Clark document with the Nouri et al. document, drawn to a fault tolerant method of obtaining and displaying or updating

the status of server components (Abstract), and the Ritchie, Jr. et al. document, drawn to a test system for evaluating the operating state of a head-end of a broadband communications network that communicates telephony signals between a telephony system and subscribers of communications services (Abstract), to obtain Appellants' invention. Appellants submit that one skilled in the art at the time of Appellants' invention would not have been motivated, absent impermissible hindsight, to combine these non-analogous inventions (i.e., inventory management, a fault tolerant method of updating the status of server components, and a system for evaluating the operating state of a network head-end that communicates telephony signals) in the manner suggested by the Examiner.

The Examiner alleges that, with respect to motivation, "the need for bandwidth allocation is noted" and relied on col. 5, lines 1-3, of Ritchie, Jr. et al. for providing this motivation (final Office Action, pg. 4). Col. 4, line 54, to col. 5, line 3, of Ritchie, Jr. et al. discloses the allocation of an unused portion of the forward band of a cable network to individual subscriber telephony signals. Contrary to the Examiner's allegation, this section of Ritchie, Jr. et al. in no way discloses or suggests the allocation of bandwidth to a test channel that is dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system, as required by Appellants' claim 1.

The Examiner further alleges that "as discussed at col. 6, lines 21-32, one of ordinary skill in the art at the time the invention was made, would have readily recognized the benefit of dedicated test channels, at least for the advantage of overcoming problems known to be associated with re-allocating bandwidth" (final Office Action, pg. 4). This section of Ritchie, Jr.

et al. in no way supports the Examiner's allegation.

Col. 6, lines 21-32, of Ritchie, Jr. et al. discloses:

For a downstream test, the test system evaluates the operating state of a selected modulator at the headend in response to receiving a downstream test signal generated by the selected modulator. The test system outputs a detected downstream test signal in response to the downstream test signal. In turn, the test system conducts error measurements based on the information of the detected downstream test signal to support an evaluation of the operating state of the selected modulator. A database containing records of the operating state of modulators at the headend can be updated based on these error measurements.

This section of Ritchie, Jr. et al. discloses testing of modulators using a downstream test signal. Contrary to the Examiner's allegation, this section of Ritchie, Jr. et al. in no way relates to allocating (or reallocating) bandwidth.

The Examiner also alleges that "one of ordinary skill in the art would have recognized the notoriously well known technique of reserving or allocating a channel for a specific purpose, as taught by Ritchie, at least for the desirable improvement of ensuring the communication of specified data, since its bandwidth or channel is already allocated" (final Office Action, pg. 4). While the Examiner's reasoning is difficult to understand (e.g., why providing a dedicated channel would in any way ensure the communication of specified data), Appellants submit that, contrary to the Examiner's position, the references of record do not disclose a problem with ensuring the communication of specified data.

The Examiner further alleges that "at the time the invention was made, single purpose or dedicated channels was not a patentably distinct feature" (final Office Action, pg. 5). The Examiner fails, however, to provide any evidence as to why the feature of a test channel that is dedicated solely to testing a selected asset, where the assets include

video content scheduled for staggered transmission to subscribers of a NVOD system, which is specifically recited in Appellants' claim 1, is not a patentably distinct feature.

Appellants submit that this allegation is without merit.

The Examiner alleges in the final Office Action that "all three of the instant references are directed to an environment of transmitting video/visual data from a central location to a plurality of viewers," "each reference discusses some aspect of testing a selected device that transmits video/visual data to a plurality of clients," "both Nouri (col. 3, lines 45-55; col. 6, lines 54-62) and Ritchie (col. 28, lines 54-67 thru col. 28, lines 1-15) provide a solution for nonproperly functioning server assets using various fault tolerant algorithms, such as for instance replacing the faulty asset with a functioning asset," and "one of ordinary skill in the art at the time the invention was made, would have been motivated to at least periodically test the status of video servers/assets that transmit video data to a plurality of clients for the desirable benefit of efficiently operating NVOD systems" (final Office Action, pp. 7-8). Appellants disagree.

Initially, Appellants note that Ritchie, Jr. et al. is directed to transmitting telephony signals from a first telephone device to a second telephone device and not, as alleged by the Examiner, video/visual data from a central location to a plurality of viewers. Therefore, the Examiner's allegations that Clark, Nouri et al., and Ritchie, Jr. et al. are directed to transmitting video/visual data from a central location to a plurality of devices and testing a selected device that transmits video/visual data to a plurality of clients are flawed.

The Examiner's allegation that, based on the disclosures of Clark, Nouri et al., and Ritchie, Jr. et al., one of ordinary skill in the art at the time the invention was made would have

been motivated to at least periodically test the status of video servers/assets that transmit video data to a plurality of clients for the desirable benefit of efficiently operating NVOD systems is flawed because neither Clark, Nouri et al., nor Ritchie, Jr. et al. discloses the desire to efficiently operate NVOD systems.

As set forth in detail above, Nouri et al. is directed to a fault tolerant method of obtaining and displaying or updating the status of server components. Nouri et al. is in no way directed to NVOD systems, let alone supplying video to viewers, as alleged by the Examiner, and one skilled in the art would not seek to combine this non-analogous document with the disclosures of Clark or Ritchie, Jr. et al. absent impermissible hindsight.

The Examiner further alleges that "one of ordinary skill in the art would have readily recognized the benefit of maintaining separate channels/links for the transmission of test RF signals and main RF signals, at least in order to conserve a certain portion of the bandwidth for distribution of the video to clients" and "using a single channel for testing enables to tested asset to be continuously tuned to a single frequency, avoiding the need to re-tune or re-scan and search for the test signal" (final Office Action, pg. 8). Appellants submit that the Examiner appears to be providing motivation as to why one of ordinary skill in the art would incorporate a dedicated channel into the Ritchie, Jr. et al. system instead of the Clark or Nouri et al. systems, since neither Clark nor Nouri et al. discloses transmitting radio frequency (RF) signals. Moreover, since Clark and Nouri et al. do not disclose or suggest the transmission of RF signals, there would be no need to re-tune or re-scan to search for a test signal in the Clark or Nouri et al. systems. Therefore, the Examiner's allegations above do not provide the necessary motivation

for incorporating Ritchie, Jr. et al.'s alleged teaching of a test channel that is dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system, into the Clark system.

Since Clark, Nouri et al., and Ritchie, Jr. et al. do not disclose a test channel dedicated solely to testing a selected asset, where the assets include video content scheduled for staggered transmission to subscribers of a NVOD system, these documents cannot disclose the content manager system including a graphical user interface that allows an administrator to view the selected asset using the test channel to verify the integrity of the selected asset loaded into the video server, as also recited in claim 1. The Examiner relies on Nouri et al. for allegedly disclosing this feature (final Office Action, pg. 11). While Nouri et al. appears to disclose that an administrator may view status information of server components (Abstract, lines 1-4), Nouri et al. does not disclose or suggest the administrator having the capability to view a selected asset using a test channel that is dedicated solely to testing to verify the integrity of the selected asset loaded into a video server, as recited in claim 1. In fact, Nouri et al. does not disclose or suggest a video server.

For at least the foregoing reasons, Appellants respectfully request that the rejection of claim 1 under 35 U.S.C. § 103(a) as unpatentable over Clark in view of Nouri et al., and further in view of Ritchie, Jr. et al. be REVERSED.

B. The rejection of claims 4-8 under 35 U.S.C. § 103(a) over Clark (U.S. Patent No. 5,383,112) in view of Nouri et al. (U.S. Patent No. 6,088,816), and further in view of Ritchie, Jr. et al. (U.S. Patent No. 5,790,523) and Gardner et al. (U.S. Patent No. 5,583,995) should be REVERSED.

Claims 4-8 stand finally rejected under 35 U.S.C. § 103(a) over Clark in view of Nouri et al., and further in view of Ritchie, Jr. et al. and Gardner et al. Appellants choose claim 4 as representative of the group including claims 4-8.

Gardner et al. is directed to a data storage and retrieval system. In Gardner et al., the system allocates the storage of data across one or more levels of I/O devices organized in a hierarchical manner in such a way as to balance the bandwidth imposed on the I/O devices (Abstract).

Appellants' claim 4 recites a head-end configuration manager that is responsive to commands from an administrator and arranged to track configuration parameters of a head-end of the NVOD system, where the configuration parameters determine NVOD channel allocations. The Examiner appears to rely on col. 1, lines 58-65, col. 4, lines 14-58, col. 5, lines 21-40, col. 11, lines 61-68, and col. 13, lines 42-55, of Gardner et al. for allegedly disclosing this feature (final Office Action, pg. 13, and Advisory Action, pg. 3). Appellants submit that these sections of Gardner et al. does not disclose or suggest the feature of claim 4.

Col. 1, line 58 to col. 2, line 1, of Gardner et al. discloses:

Any video-on-demand system providing multiple data streams should preferably be able to detect and correct errors caused by failures or data aberrations (e.g., disk drive failures or parity errors). Thus, hardware and/or data redundancy and various error correcting schemes are needed to ensure data integrity and availability. However, the use of a "brute-force" disk mirroring scheme or other similarly unsophisticated method is unacceptably expensive in a video-on-demand system, because the amount of data storage could easily extend into terabytes of

data, currently out of the price range for many applications.

Contrary to the Examiner's allegation, this section of Gardner et al. does not disclose or suggest a head-end configuration manager that tracks configuration parameters of a head-end of a NVOD system. In fact, this section of Gardner et al. in no way relates to tracking configuration parameters.

Col. 4, lines 14-59, of Gardner et al. discloses:

Viewing each media server MS1 through MS3 as a resource which may be used to supply data in the system, each media server is able to provide data from its associated disks at a sustained data rate which is dependent on a number of factors.

First, each media server generally comprises a CPU, memory, internal data bus, and one or more network interfaces across which all data must generally flow when retrieved from the disks and supplied to the network. Thus, each media server can be viewed as a node having a maximum data bandwidth which cannot be exceeded on a sustained basis. In other words, regardless of the number of disks and controllers within the media server, it has a maximum output data rate which cannot be exceeded. The bandwidth of each media server can be determined empirically by attempting to retrieve large quantities of data at a sustained rate using various I/O configurations. (It will be noted that configurations are possible in which the computer itself presents essentially no bottleneck, and the invention is not intended to be limited in this respect). Each node is indicated in FIG. 1 with the designation "N" followed by a number (e.g., N1 is a node corresponding to the data "pipe" through which media server MS1 can supply data).

Second, each media server may comprise one or more disk controllers, each of which typically has a maximum sustainable data rate at which it can provide data retrieved from all the disks it controls. For example, SCSI controllers have a typical maximum sustainable data rate of about 4 megabytes per second (4 MB/sec), regardless of how many disks are controlled by that SCSI controller. Although media server MS1 has two disk controllers a1 and a2, the bandwidth of the media server as a whole may be lower than the combined bandwidth of the two controllers, because the node itself may have a lower sustainable data rate than that of the combined controllers. Typically, each SCSI controller can control up to 7 disks, although the invention is not limited in this respect and any type of

disk controller or other I/O device can be used. For the sake of clarity, a discussion of separate SCSI "chains" has been omitted, it being understood that an I/O hierarchy may exist within each controller.

Third, each disk controller may control one or more disks, each disk having a maximum sustainable data rate at which it can provide data in read or write operations. Thus, if disk d1 and d2 each can read data at a sustained rate of 3 MB/sec, the maximum data available from these combined disks would be 6 MB/sec.

Similar to the section above, this section of Gardner et al. does not disclose or suggest a head-end configuration manager that tracks configuration parameters of a head-end of a NVOD system.

Col. 5, lines 21-40, of Gardner et al. discloses:

The foregoing considerations, which are factored into how a computer system should be configured, can be advantageously used to determine where and how data blocks should be distributed in the system for a particular data file in order to optimize data access and guarantee isochronous data streams for applications such as video-on-demand.

The inventors of the present invention have discovered that using a data storage and retrieval scheme which takes into account the bandwidth characterizations in a system such as that shown in FIG. 1 results in substantial increases in efficiency which can significantly reduce the number of devices which must be assembled to provide the large data storage capacity needed for video on demand and other applications. Such a scheme can also guarantee consumers of the stored data that they will be able to store and retrieve data at a specified bandwidth at delivery time, thus ensuring that an isochronous data stream can be provided. This is particularly important in a video-on-demand system, because different multiple isochronous video streams must be provided in varying configurations as movies are started, stopped, fast forwarded, and the like over the network.

This section of Gardner et al. discloses the use of a data storage and retrieval scheme for video on demand. This section of Gardner et al. does not disclose or suggest, however, a head-end configuration manager that is responsive to commands from an administrator and arranged to track configuration parameters of a head-end of the NVOD system, where the configuration

parameters determine NVOD channel allocations. In fact, this section of Gardner et al. in no way relates to a head-end configuration manager.

Col. 11, line 61 to col. 12, line 2, of Gardner et al. discloses

[a] primary objective of the above-described scheme is to cause data to be stored in each media server in a manner which balances the anticipated load when the data is retrieved in a sequential manner. Thus, for example, if disk d2 can support a higher effective data rate for reading data than disk d1, then more read operations should be directed to disk d2 at retrieval time in order to prevent 'under-use' of that disk compared to the slower disks.

This section of Gardner et al. discloses the ability to store data in media servers in a way that balances the anticipated load. Appellants submit that this is different than tracking configuration parameters of a head-end of a NVOD system.

Col. 13, lines 42-55, of Gardner et al. discloses:

As shown in FIG. 6, each team of media servers preferably has associated therewith not only a total available bandwidth, but also a "currently allocated" portion of this total available bandwidth. That is, as requests are made to use portions of the available bandwidth associated with each team, a record is kept of how much bandwidth has been actually allocated to clients for that team. In this manner, the system can be guaranteed to deliver the requested bandwidth to clients without exceeding the limits of the system. By the same principle, use can effectively be made of all of the available bandwidth for a particular configuration, thus avoiding wasteful use of resources in the system. This guaranteed allocation of bandwidth will now be described.

This section of Gardner et al. discloses the ability to allocate bandwidth from a group of media servers to clients that are requesting bandwidth. Appellants submit that this is different than tracking configuration parameters of a head-end of a NVOD system.

Further with respect to this feature, the Examiner alleges that "[a]gain it is pointed out that the problem of tracking the configuration of servers in a video distribution network was very

well known at the time of the present invention. Likewise, the technique of bandwidth or channel allocation was also notoriously well known in the art, at the time the invention was made" (final Office Action, pp. 8-9). Regardless of the veracity of the Examiner's general allegations, these allegations fail to address the features of Appellants' claim 4 or Appellants' arguments that Gardner et al. does not, contrary to the Examiner's allegations, disclose or suggest a head-end configuration manager that is responsive to commands from an administrator and arranged to track configuration parameters of a head-end of the NVOD system, where the configuration parameters determine NVOD channel allocations.

Even assuming, for the sake of argument, that Gardner et al. discloses a head-end configuration manager that is responsive to commands from an administrator and arranged to track configuration parameters of a head-end of the NVOD system, where the configuration parameters determine NVOD channel allocations, as alleged by the Examiner, Appellants submit that one skilled in the art at the time of Appellants' invention would not have been motivated to combine the disclosures of Clark, Nouri et al., Ritchie, Jr. et al., and Gardner et al. in the manner suggested by the Examiner, absent impermissible hindsight.

Appellants' arguments above with respect to combining Clark, Nouri et al., and Ritchie, Jr. et al. are equally applicable here. Appellants submit that one skilled in the art at the time Appellants' invention was made, having no knowledge of Appellants' invention, would not have been motivated to combine the Clark document, drawn to inventory management, with the Nouri et al. document, drawn to a fault tolerant method of obtaining and displaying or updating the status of server components, the Ritchie, Jr. et al. document, drawn to a test system for evaluating

the operating state of a head-end of a broadband communications network that communicates telephony signals between a telephony system and subscribers of communications services, and the Gardner et al. system, drawn to a system for allocating a data file across a group of media servers, absent impermissible hindsight.

The Examiner's allegations on page 9 of the final Office Action regarding Gardner et al. in no way addresses the fact that the Examiner has failed to provide the necessary motivation as to why one skilled in the art would have been motivated to combine the teachings of Gardner et al. with Clark, Nouri et al., and Ritchie, Jr. et al.

For at least the foregoing reasons, Appellants respectfully request that the rejection of claim 4 under 35 U.S.C. § 103(a) as unpatentable over Clark in view of Nouri et al., and further in view of Ritchie, Jr. et al. and Gardner et al. be REVERSED.

C. The rejection of claims 17 and 18 under 35 U.S.C. § 103(a) over Clark (U.S. Patent No. 5,383,112) in view of Davis et al. (U.S. Patent No. 5,576,755), and further in view of Ritchie, Jr. et al. (U.S. Patent No. 5,790,523) should be REVERSED.

Claims 17 and 18 stand finally rejected under 35 U.S.C. § 103(a) over Clark in view of Davis et al., and further in view of Ritchie, Jr. et al. Appellants choose claim 17 as representative of the group including claims 17 and 18.

Davis et al. is directed to a system that verifies electronic television program guide data. In Davis et al., the system automatically checks program listings data in a database of television program schedule listings used in an electronic program guide (Abstract).

Claim 17 recites a method for controlling a near-video-on-demand (NVOD) system. The

method includes receiving a schedule from a schedule provider, validating the schedule, processing the schedule to generate a finalized schedule, receiving assets including content, loading the assets into a video server via a group of channels according to the finalized schedule, where at least one of the group of channels includes a test channel dedicated solely for testing purposes, distributing the finalized schedule to the video server, to a business support system, and to an electronic program guide system, and transmitting the content using staggered transmission over a plurality of channels to subscribers of the NVOD system. Clark, Davis et al., and Ritchie, Jr. et al., whether taken alone or in any reasonable combination, do not disclose or suggest this combination of features.

For example, Clark, Davis et al., and Ritchie, Jr. et al. do not disclose or suggest loading assets into a video server via a group of channels according to a finalized schedule, where at least one of the group of channels includes a test channel dedicated solely for testing purposes. The Examiner admits that Clark and Davis et al. do not disclose this feature and relied on the test RF channel associated with the DTM 804 in Ritchie, Jr. et al. for allegedly disclosing this feature (final Office Action, pg. 15). Appellants disagree.

As set forth in detail above, Ritchie, Jr. et al.'s DMTs 804 represent downstream transmitter modules (see col. 25, line 65 to col. 26, line 1) and correspond to forward modulators 320 of the head-end interface unit 301 (col. 26, lines 14-20). Ritchie, Jr. et al. specifically discloses that that the forward modulators 320 are used for coupling outgoing telephony signals to the broadband network (col. 16, lines 58-62). Contrary to the Examiner's position, Ritchie, Jr. et al. in no way discloses or suggests that the test RF output 820 of DMT 804 is one of a group of

channels that is used for loading assets into a video server according to a finalized schedule, as required by Appellants' claim 17. Instead, Ritchie, Jr. et al. merely discloses that test RF output is used for transmitting downstream test signals for reception by the TCM 800 (col. 27, lines 13-17).

The Examiner fails to point to any section of Ritchie, Jr. et al. that discloses that test RF output 820 of DMT 804 is one of a group of channels that is used for loading assets into a video server according to a finalized schedule. Since the Examiner fails to point to any section of Clark, Davis et al., or Ritchie, Jr. et al. that discloses this feature, a *prima facie* case of obviousness has not been established with respect to claim 17.

Even assuming, for the sake of argument, that the disclosure of Ritchie, Jr. et al. can be reasonably construed to disclose the recited feature of Appellants' claim 17, one skilled in the art would not have been motivated to combine Clark, which is drawn to inventory management, with Davis et al., which is drawn to verifying electronic television program guide data, and Ritchie, Jr. et al., which is drawn to a test system for evaluating the operating state of a head-end of a broadband communications network that communicates telephony signals between a telephony system and subscribers of communications services, absent impermissible hindsight.

For at least the foregoing reasons, Appellants respectfully request that the rejection of claim 17 under 35 U.S.C. § 103(a) as unpatentable over Clark in view of Davis et al., and further in view of Ritchie, Jr. et al. be REVERSED.

D. The rejection of claims 19 and 20 under 35 U.S.C. § 103(a) over Clark (U.S. Patent No. 5,383,112) in view of Davis et al. (U.S. Patent No. 5,576,755), and further in view of Ritchie, Jr. et al. (U.S. Patent No. 5,790,523) and Nouri et al. (U.S. Patent No. 6,088,816) should be REVERSED.

Claims 19 and 20 stand finally rejected under 35 U.S.C. § 103(a) over Clark in view of Davis et al., and further in view of Ritchie, Jr. et al. and Nouri et al.

Claim 19 recites generating a GUI screen to allow an administrator to monitor the loading of the assets into the video server. The Examiner appears to rely on Nouri et al. for allegedly disclosing this feature. While not acquiescing in the Examiner's position, Appellants submit that one skilled in the art at the time of Appellants' invention would not have been motivated, absent impermissible hindsight, to combine the disclosure of Clark, which is drawn to inventory management, with the disclosures of Davis et al., which is drawn to a system that verifies electronic television program guide data, Ritchie, Jr. et al., which is drawn to a test system for evaluating the operating state of a head-end of a broadband communications network that communicates telephony signals between a telephony system and subscribers of communications services, and Nouri et al., which is drawn to a fault tolerant method of obtaining and displaying or updating the status of server components, since these disclosures are drawn to non-analogous inventions.

Neither the final Office Action nor the Advisory Action addresses the above argument. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 19.

For at least the foregoing reasons, Appellants respectfully request that the rejection of claim 19 under 35 U.S.C. § 103(a) as unpatentable over Clark in view of Davis et al., and further in view of Ritchie, Jr. et al. and Nouri et al. be REVERSED.

Claim 20 recites receiving an asset selection command through the GUI screen to select an asset loaded into the video server; receiving a test actuation signal through the GUI screen; and sending the asset to a display of an administrator over the test channel for viewing the selected asset. The Examiner fails to address the specific features recited in Appellants' claim 20. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 20.

Moreover, even assuming, for the sake of argument, that the combination of Clark, Davis et al., Ritchie, Jr. et al., and Nouri et al. discloses the features of claim 20, Appellants submit that one skilled in the art at the time of Appellants' invention would not have been motivated, absent impermissible hindsight, to combine the disclosure of Clark, which is drawn to inventory management, with the disclosures of Davis et al., which is drawn to a system that verifies electronic television program guide data, Ritchie, Jr. et al., which is drawn to a test system for evaluating the operating state of a head-end of a broadband communications network that communicates telephony signals between a telephony system and subscribers of communications services, and Nouri et al., which is drawn to a fault tolerant method of obtaining and displaying or updating the status of server components, since these disclosures are drawn to non-analogous inventions.

Neither the final Office Action nor the Advisory Action addresses the above argument. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 20.

For at least the foregoing reasons, Appellants respectfully request that the rejection of claim 20 under 35 U.S.C. § 103(a) as unpatentable over Clark in view of Davis et al., and further

in view of Ritchie, Jr. et al. and Nouri et al. be REVERSED.

E. The rejection of claims 21-25 and 27 under 35 U.S.C. § 103(a) over Clark (U.S. Patent No. 5,383,112) in view of Davis et al. (U.S. Patent No. 5,576,755), and further in view of Ritchie, Jr. et al. (U.S. Patent No. 5,790,523) and Gardner et al. (U.S. Patent No. 5,583,995) should be REVERSED.

Claims 21-25 and 27 stand finally rejected under 35 U.S.C. § 103(a) over Clark in view of Davis et al., and further in view of Ritchie, Jr. et al. and Gardner et al. Appellants have chosen claim 21 as representative of the group of claims including claims 21-23, 25, and 27.

Claim 21 recites a method for validating scheduling information. The method includes receiving at a master scheduler the scheduling information from a schedule provider, receiving an asset from an asset provider, loading the asset into a video server, verifying an integrity of the asset via a test channel, where the test channel is dedicated solely for testing assets in the video server, obtaining asset information from the video server, comparing the asset information to the scheduling information, identifying a variance of the asset information to the scheduling information, modifying the scheduling information at the master scheduler to obtain modified scheduling information, and transmitting the modified scheduling information to a program guide system and to a business support system, the program guide system disseminating program guide information and the business support system generating billing information. Appellants submit that Clark, Davis et al., Ritchie, Jr. et al., and Gardner et al., whether taken alone or in any reasonable combination, do not disclose or suggest the features of claim 21.

For example, Clark, Davis et al., Ritchie, Jr. et al., and Gardner et al. do not disclose or suggest verifying an integrity of an asset via a test channel that is dedicated solely for testing

assets in the video server. The Examiner appears to rely on the same rationale used to reject claim 17 (final Office Action, pg. 17).

As set forth in detail above, Ritchie, Jr. et al.'s DMTs 804 represent downstream transmitter modules (see col. 25, line 65 to col. 26, line 1) and correspond to forward modulators 320 of the head-end interface unit 301 (col. 26, lines 14-20). Ritchie, Jr. et al. specifically discloses that that the forward modulators 320 are used for coupling outgoing telephony signals to the broadband network (col. 16, lines 58-62). Contrary to the Examiner's position, Ritchie, Jr. et al. in no way discloses or suggests that the test RF output 820 of DMT 804 is used solely for testing assets in a video server, as required by Appellants' claim 21.

The Examiner fails to point to any section of Ritchie, Jr. et al. that discloses that test RF output 820 of DMT 804 is used solely for testing assets in a video server. Since the Examiner fails to point to any section of Clark, Davis et al., or Ritchie, Jr. et al. that discloses this feature, a *prima facie* case of obviousness has not been established with respect to claim 21.

Appellants submit that, even assuming that Ritchie, Jr. et al. discloses the recited feature of Appellants' claim 21, one skilled in the art would not have been motivated to combine Clark, which is drawn to inventory management, with Davis et al., which is drawn to verifying electronic television program guide data, and Ritchie, Jr. et al., which is drawn to a test system for evaluating the operating state of a head-end of a broadband communications network that communicates telephony signals between a telephony system and subscribers of communications services, and Gardner et al., which is drawn to a system for allocating a data file across a group of media servers, absent impermissible hindsight. Neither the final Office Action nor the

Advisory Action addresses this argument. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 21.

For at least the foregoing reasons, Appellants respectfully request that the rejection of claim 21 under 35 U.S.C. § 103(a) as unpatentable over Clark in view of Davis et al., and further in view of Ritchie, Jr. et al. and Gardner et al. be REVERSED.

Appellants' claim 24 recites comparing asset information, comprising an asset return date, to the scheduling information comprising a scheduled play date and inhibiting playing of the asset if the scheduled play date is later than the asset return date. With respect to these features, the Examiner alleged that "Official Notice is taken that at the time the invention was made, it was well known to limit the viewing or playing of video on demand services to subscribers based on several parameters, including the timeliness of the data" (final Office Action, pg. 18).

Appellants submit that the features of claim 24 are not well-known in the art and have requested that the Examiner provide a reference to support the Examiner's allegation (see, for example, Appellants' Request for Reconsideration, filed June 4, 2003). The Examiner has failed to provide any documentation to support the position that the features of claim 24 are well-known in the art. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 24.

For at least the foregoing reasons, Appellants respectfully request that the rejection of claim 24 under 35 U.S.C. § 103(a) as unpatentable over Clark in view of Davis et al., and further in view of Ritchie, Jr. et al. and Gardner et al. be REVERSED.

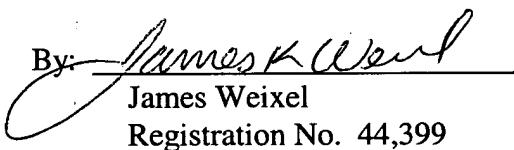
IX. CONCLUSION

In view of the foregoing arguments, Appellants respectfully solicit the Honorable Board to reverse the outstanding rejections of claims 1-8, 17-25, and 27.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 07-2339 and please credit any excess fees to such deposit account.

Respectively submitted,

VERIZON CORPORATE SERVICES GROUP INC.

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APPENDIX

1. A master scheduler arranged to control a near-video-on-demand (NVOD) system, the master scheduler comprising:

a schedule management system arranged to receive and validate a schedule; and a content manager system arranged to monitor and control the loading of assets into a video server according to the validated schedule, wherein the assets include video content scheduled for staggered transmission to subscribers of the NVOD system using a plurality of channels, the plurality of channels including a test channel dedicated solely for testing a selected asset,

wherein the content manager includes a graphical user interface configured to allow an administrator to view the selected asset using the test channel to verify the integrity of the selected asset loaded into the video server.

2. The master scheduler of claim 1 further comprising:

a management processor including a graphic user interface (GUI), responsive to GUI-based commands from an administrator, arranged to interact with the content manager system to control the loading of the assets.

3. The master scheduler of claim 1 further comprising:

a schedule distributor arranged to distribute a finalized schedule of programming events to external entities of the NVOD system, including the video server;

wherein the schedule management system, responsive to commands from an administrator, modifies the validated schedule to generate the finalized schedule of programming events.

4. The master scheduler of claim 1 further comprising:

a head-end configuration manager, responsive to commands from an administrator, arranged to track configuration parameters of a head-end of the NVOD system, wherein the configuration parameters determine NVOD channel allocations.

5. The master scheduler of claim 1 further comprising:

a task management system arranged to generate an indication of tasks to be performed to conduct the loading of assets to the video server.

6. The master scheduler of claim 5 further comprising:

a notification generator, responsive to the occurrence of conditions associated with generated tasks, arranged to generate notifications of the conditions.

7. The master scheduler of claim 1 further comprising:

an asset management system arranged to monitor the status and conditions of assets in the NVOD system.

8. The master scheduler of claim 7 further comprising:
a graphic user interface (GUI) arranged to generate an asset management screen to
allow an administrator to access the asset management system for viewing asset-related data.

17. A method for controlling a near-video-on-demand (NVOD) system, the method
comprising the steps of:

receiving a schedule from a schedule provider;
validating the schedule;
processing the schedule to generate a finalized schedule;
receiving assets including content;
loading the assets into a video server via a group of channels according to the
finalized schedule, at least one of the group of channels includes a test channel dedicated solely
for testing purposes;

distributing the finalized schedule to the video server, to a business support
system, and to an electronic program guide system; and
transmitting the content using staggered transmission over a plurality of channels
to subscribers of the NVOD system.

18. The method of claim 17 wherein the step of receiving assets includes the step of:
cataloging the received assets using an asset management system.

19. The method of claim 17 further comprising the step of:
generating a graphic user interface (GUI) screen to allow an administrator to
monitor the loading of the assets into the video server.
20. The method of claim 19 further comprising the steps of:
receiving an asset selection command through the GUI screen to select an asset
loaded into the video server;
receiving a test actuation signal through the GUI screen; and
sending the asset to a display of an administrator over the test channel for viewing
the selected asset.
21. A method for validation of scheduling information comprising:
receiving at a master scheduler said scheduling information from a schedule
provider;
receiving an asset from an asset provider;
loading said asset into a video server;
verifying an integrity of said asset via a test channel, the test channel being
dedicated solely for testing assets in said video server;
obtaining asset information from said video server;
comparing said asset information to said scheduling information;
identifying a variance of said asset information to said scheduling information;

modifying said scheduling information at said master scheduler to obtain modified scheduling information; and

transmitting said modified scheduling information to a program guide system and to a business support system, said program guide system disseminating program guide information and said business support system generating billing information.

22. The method of claim 21 wherein said step of comparing asset information to said scheduling information comprises:

comparing said asset information comprising measured duration information measured from said asset to said scheduling information comprising stored duration information.

23. The method of claim 21 wherein said step of comparing asset information to said scheduling information comprises:

obtaining calculated duration information based on a difference between a scheduled start time and a scheduled end time;

comparing said asset information comprising measured duration information measured from said asset to said calculated duration information.

24. The method of claim 21 wherein said step of comparing asset information to said scheduling information comprises:

comparing said asset information comprising an asset return date to said

scheduling information comprising a scheduled play date;

 said method further comprising:

 inhibiting playing of said asset if said scheduled play date is later than said asset return date.

25. The method of claim 21 further comprising:

 receiving at said master scheduler program guide information from a program guide system;

 comparing said program guide information to said scheduling information.

27. The method of claim 21 further comprising:

 obtaining pricing information from said asset provider;

 modifying said pricing information at said master scheduler to obtain modified pricing information;

 transmitting said modified pricing information from said master scheduler to a business support system, said business support system generating billing information.